CENTRAL INTELLIGENCE AGENCY

INFORMATION REPORT

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25X1X 1. X1A	rayon clip and various plant was constructed under the direction of for the production of NOVAK completed. The plant for Artificial Fibers, Spolana was a relative buildings. The two is shop and the spinning bath shop was one of the product of the plant of the plant buildings. The two is shop and the spinning bath shop was one of the plant of	chemicals. For during the German Ing. (fnu) NOVA viscose rayon. It I do not know was subordinate to a division of the largest of these car bath shop. The the largest industry in the Vistra rayon. The was performed as follows: See Was performed to the Company of the largest of the Company of the largest industry of t	in a sontinous process	lovakia expert on of ion was ration Industry. roduction colution e spinning choslovakia. German

The viscose solution when leaving the spinnerets of the spinning machine was regenerated by contact with the spinning bath into cellulose, which now had the shape consistency of a solid filament:

 $cs_{0\cdot(c_{6}H_{8}O_{3})}^{SNa} \rightarrow H_{2}so_{4} \rightarrow c_{6}H_{10}O_{5} + Na_{2}so_{4} + cs_{2}$

For more detailed information on viscose fiber production ____ 25X1A

- 3. In the Autumn of 1949, two production lines were in full operation in the Spolana Plant.

 There were to be altogether four production lines. Two of them were still under construction in the Autumn of 1949 but should certainly be completed by now.

 As of Autumn 1949, the two lines in operation each produced 3,600 m. per hour of viscose rayon cord weighing 800 kg. The cord was over 2,000,000 denier. There was one spinning machine for each production line. Each spinning machine had 100 spinnerets 37/28 x 14 mms. in diameter; each spinneret had about 5,000 orifices 0.06 mm. in diameter. Thus, the cord consisted of about 500,000 viscose rayon fibers.
- 4. After the spinning of the viscose rayon cord had been completed, the cord was submitted to a series of continuous operations.

 First, the cord was spread and stretched between different kinds of rollers. Then, being firmly stretched, it passed through water heated to 80°C. to be desulphurized. Next, the cord, now in a loose state, was wrung and washed several times consecutively, then bleached, washed, and wrung again until it was cut on a cutting machine into pieces of 30/40-100/120 mm. The clip fell from a cutting machine into a water and emulsion bath where, as a result of decreased tension, it became slightly wavy and perfectly revived. Next, the clip was wrung out and carried by a hopper feeder to a dryer where its water content was reduced to about eight per cent of relative humidity. Another conveyor carried the clip to a picker-lapper with compressing rollers and lapping attachment where laps about one meter long and about 400 mm. in diameter were made. These laps were weighed, sacked, and transported to a warehouse.
- 5. All the viscose rayon clip produced in the Spolana Plant was used in the Czechoslovak textile industry, but I do not know any details about the distribution or use of the clip.
- 6. In the Spolana Plant there was a small spinning mill for trial purposes which was located in an independent building over 30 x 30 m. in size. This building was very well equipped. The spinning mill produced textiles out of the Spolana clip mixed with other textile raw materials; the quality of the clip in these products was tested at the mill.
- 7. The Spolana plant had its own chemical and textile laboratories. These were well equipped and carried out research on new kinds of textiles, including research on different mixtures of cotton, wool, or rayon with viscose clip.
- 8. In addition to the production of viscose rayon clip, some chemicals were produced in the Spolana Plant, but I do not know any details about this production.

Annexes:

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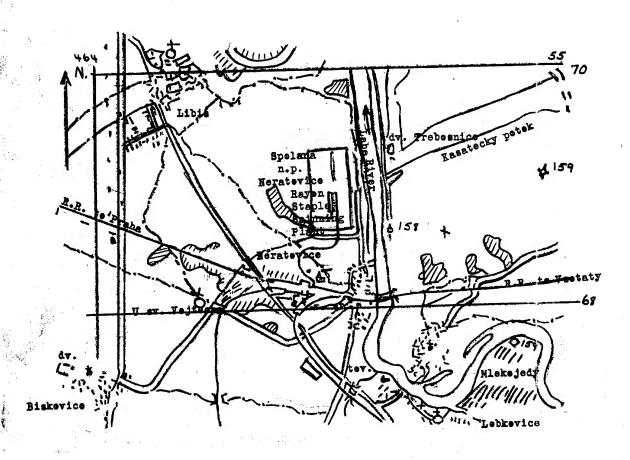
- A. Spolana National Enterprise in Neratovice
- B. Production Flow Sheet of Viscose Rayon Clip at Spolana National Enterprise in Neratovice

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ANNEX A

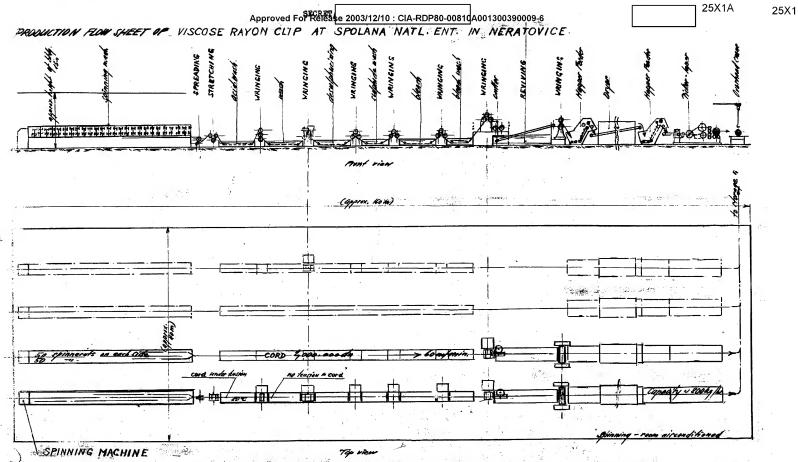
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Spolana National Enterprise in Neratovice



Overlay on: Map Melnik east-Czechoslovakia 1:25.000 Sheet 3853/3E Ams S. M872

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ANNEX B.